# **ATTACHMENT 14**

PROCEDURE: <u>FORMS</u> REVISION: <u>2</u> REVISED: <u>08/02/05</u>

### INSPECTION PROCEDURE

### CONTAINER STORAGE AREAS - INSPECTED ONCE PER WEEK

- ► SHED 3 TOTE TANKS AND SOLID WASTE BOXES FROM B-1, B-3, B-6, B-10, B-14 AND SHED 3
- ► LAB 5 GALLON CONTAINERS FROM DEVELOPMENTAL LAB AND QC LAB
- **▶**OUTSIDE LAB 55 GALLON DRUMS STORED OUTSIDE THE LAB
- ► SMALL SCALE PRODUCTION
- **▶STORAGE SHED**
- **▶** ANY TEMPORARY CONTAINER STORAGE AREA

### INSPECT THESE AREAS FOR THE FOLLOWING:

- Storage does not exceed 90 days
- 2. Containers are in good condition
- 3. Waste is compatible with containers
- Containers are closed
- 5. Containers storing incompatible waste are separated or protected from each other by a dike, berm or wall
- Container storage areas have a containment system if holding more than 1000 KG of liquid hazardous waste
- 7. Base of containment system is impervious and free of cracks or gaps
- 8. Containers protected from contact with accumulated liquids
- 9. Capacity of containment system = 10% of waste volume or volume of larges container, whichever is greater
- 10. Run-on onto the containment system is prevented or excess capacity is provided
- 11. Accumulated liquids are removed to prevent overflow of containment
- 12. Containers of ignitable or reactive waste are stored 50 feet from property line
- 13. Containers are clearly marked "Hazardous Waste"
- 14. Waste packaged/labeled/marked per DOT during entire on-site storage period
- 15. Date of accumulation is marked on containers
- 16. Facility inspected and maintained (weekly)
- 17. Daily inspection of areas subject to spills (i.e. waste handling areas)
- 18. Adequate aisle space is available
- 19. Placards are available for transporters
- 20. "No Smoking" signs are conspicuously placed by ignitable or reactive wastes

### **BULK TANK STORAGE AREAS – INSPECTED ONCE PER DAY**

- ► THE FOLLOWING 8,000 GALLON HAZARDOUS WASTE STORAGE TANKS TCS-8000-1, TCS-8000-2, TCS-8000-3, TCS-8000-4, TCS-8000-5, TCS-8000-6, TCS-8000-7, TCS-8000-8, TCS-8000-9, TCS-8000-10
- ► THE FOLLOWING 10,000 GALLON HAZARDOUS WASTE STORAGE TANKS TCS-10,0000-3
- ► ANY TEMPORARY BULK STORAGE TANKS OR TANK TRUCKS

### INSPECT THESE AREAS FOR THE FOLLOWING:

- Overfill prevention controls are in place and operating (e.g. check valves, dry discount couplings.
- 2. Sufficient freeboard in uncovered tanks to prevent overtopping
- 3. Waste or treatment method is compatible with tank
- 4. Incompatible wastes are not placed in same tank
- 5. Ignitable or reactive wastes are rendered safe and protected from sources of ignition or reaction
- Ignitable or reactive wastes are treated and stored in accordance with NFPA's buffer zone requirements
- 7. Volatiles with vapor pressure greater than 78mm at 25°C are not placed in open tanks
- 8. Secondary containment system is provided for tanks and equipment that were installed after July 14, 1986; or that are storing dioxin water; or are over 15 years old; or are of unknown age in a facility over 15 years old; or are repaired, replaced or reinstalled after July 15, 1986
- 9. Secondary containment system is constructed of or lined with waste compatible material of sufficient strength and thickness
- 10. Containment system is supported by base capable of preventing failure due to settlement, compression or uplift
- 11. Containment system is sloped or designed to drain and remove liquids
- 12. Containment system is capable of containing 100% of the capacity of the largest
- 13. Containment system is free of cracks and gaps
- 14. Run-on onto containment system is prevented or excess capacity is provided
- 15. Spilled or leaked waste and precipitation is removed from secondary containment within 24 hours or as soon as possible
- 16. Tanks are clearly labeled or marked "Hazardous Waste"
- 17. Overfill/spill control equipment, aboveground portions of tanks system, secondary containment, and data gathered from monitoring equipment are inspected daily
- 18. An inspection log is maintained

## SATELLITE CONTAINER STORAGE AREAS – INSPECTED ONCE PER WEEK MERCURY – IN LAB

### INSPECT THESE AREAS FOR THE FOLLOWING:

- Containers are kept closed
- 2. Containers are in good condition
- Waste is compatible with container
- 4. Quantities accumulated not exceeding 55 gallons (1 quart of acutely hazardous wastes)
- 5. Satellite containers go to storage within 3 days of filling
- 6. Container is marked identifying contents and beginning accumulation date
- 7. Stored in satellite areas less than 1 year

## UNIVERSAL CONTAINER STORAGE AREAS – INSPECTED ONCE PER WEEK FLOURESCENT BULBS IN B-5

#### INSPECT THESE AREAS FOR THE FOLLOWING:

- 1. Storage area is marked with an accumulation date
- 2. Accumulation date is less than 1 year
- 3. Containers are closed

## HAZARDOUS WASTE PERMIT BY-RULE EQUIPMENT AND TANKS - INSPECTED ONCE PER DAY

- ► THE FOLLOWING 8,000 GALLON HAZARDOUS WASTE STORAGE TANKS TCS-8000-1, TCS-8000-2, TCS-8000-3, TCS-8000-4
- ► THE FOLLOWING MPPE EQUIPMENT TO1 TANK, SO1 TANK, MPPE COLUMNS 1 and 2

### INSPECT THESE AREAS FOR THE FOLLOWING:

- 1. Overfill prevention controls are in place and operating (e.g. check valves, dry discount couplings.
- 1. Sufficient freeboard in uncovered tanks to prevent overtopping
- 2. Waste or treatment method is compatible with tank
- 3. Incompatible wastes are not placed in same tank
- 4. Ignitable or reactive wastes are rendered safe and protected from sources of ignition or reaction
- 5. Ignitable or reactive wastes are treated and stored in accordance with NFPA's buffer zone requirements
- 6. Volatiles with vapor pressure greater than 78mm at 25°C are not placed in open tanks

- 7. Secondary containment system is provided for tanks and equipment that were installed after July 14, 1986; or that are storing dioxin water; or are over 15 years old; or are of unknown age in a facility over 15 years old; or are repaired, replaced or reinstalled after July 15, 1986
- 8. Secondary containment system is constructed of or lined with waste compatible material of sufficient strength and thickness
- 9. Containment system is supported by base capable of preventing failure due to settlement, compression or uplift
- 10. Containment system is sloped or designed to drain and remove liquids
- 11. Containment system is capable of containing 100% of the capacity of the largest tank
- 12. Containment system is free of cracks and gaps
- 13. Run-on onto containment system is prevented or excess capacity is provided
- 14. Spilled or leaked waste and precipitation is removed from secondary containment within 24 hours or as soon as possible
- 15. Tanks are clearly labeled or marked "Hazardous Waste"
- 16. Overfill/spill control equipment, aboveground portions of tanks system, secondary containment, and data gathered from monitoring equipment are inspected daily
- 17. An inspection log is maintained

# ATTACHMENT 15

### All Regulations

### Percent Leaker Report

Monitor Run ID: 0506

Area: ALL Sub Area: ALL

Equip Type	Chemical State	Total Monitored	Total Left to Monitor	Percent Monitored	Number of Leaks	Percent Leaking	Delay of Repair	Lea (ppi
PMP	Light Liquid	5	0	100.00%	0	0.00%	0	1
VLV	Light Liquid	148	0	100.00%	0	0.00%	0	1
	TOTALS	153	0	100.00%	0	0.00%	0	

			Run ID 0506					Bkgrd	
Area	Sub Area	Tag ID	Description	Туре	Size	Monitor Date	(ppm)	Read	
RCRA	RCRA	141	INSIDE B-1 GROUND FLOOR PUMP-105 EAST WALL	PMP	0.000	05/30/2006	1	5	
RCRA	RCRA	165	B-6 NORTH-EAST WALL PUMP-610 ORGANIC	PMP	0.000	05/30/2006	3	6	
RCRA	RCRA	166	B-6 NORTH-EAST WALL PUMP-609 AQUEOUS	PMP	0.000	05/30/2006	0	6	
RCRA	RCRA	273	B-14 RG-3004 PUMP-1405	PMP	0.000	05/30/2006	0	7	
RCRA	RCRA	299	B-3 TS-3002 PUMP	PMP	0.000	05/30/2006	0	5	
RCRA	RCRA	10	BST-10000-4 BULK WASTE STORAGE TANK	VLV	0.750	05/30/2006	4	4	
RCRA	RCRA	103	GROUND LEVEL AT BST-8000-7	ATA	2.000	05/30/2006	4	4	
RCRA	RCRA	107	GROUND LEVEL AT BST-8000-7	VLV	6.000	05/30/2006	0	4	
RCRA	RCRA	109	GROUND LEVEL AT BST-8000-7	ATA	1.000	05/30/2006	0	4	
RCRA	RCRA	110	GROUND LEVEL AT BST-8000-7	VLV	1.000	05/30/2006	0	4	
RCRA	RCRA	111	GROUND LEVEL AT BST-8000-7	VLV	1.000	05/30/2006	0	4	
RCRA	RCRA	114	GROUND LEVEL AT BST-8000-4	VLV	2.000	05/30/2006	2	4	
RCRA	RCRA	115	GROUND LEVEL AT BST-8000-4	VLV	2.000	05/30/2006	5	4	
RCRA	RCRA	118	GROUND LEVEL AT BST-8000-1	ATA	2.000	05/30/2006	1	4	
RCRA	RCRA	121	GROUND LEVEL AT BST-8000-2	VLV	2.000	05/30/2006	6	4	
RCRA	RCRA	124	GROUND LEVEL AT BST-8000-3	VLV	2.000	05/30/2006	2	4	
RCRA	RCRA	13	BST-10000-4 BULK WASTE STORAGE TANK IN PIPELINES	ATA	1,000	05/30/2006	0	4	
RCRA	RCRA	134	INSIDE B-1 AGINST SOUTH WALL	ATA	2,000	05/30/2006	0	5	
RCRA	RCRA	135	INSIDE B-1 AGINST SOUTH WALL	VLV	2.000	05/30/2006	0	5	
RCRA	RCRA	136	INSIDE B-1 AGINST SOUTH WALL	ATA	1.000	05/30/2006	1	. 5	
RCRA	RCRA	137	INSIDE B-1 AGINST NORTH WALL UP STAIRS	ATA	2,000	05/30/2006	9	4	
RCRA	RCRA	140	INSIDE B-1 AGINST NORTH WALL UP STAIRS	ATA	2.000	05/30/2006	4	5	
RCRA	RCRA	143	INSIDE B-1 GROUND FLOOR PUMP-105 EAST WALL	ATA	1.000	05/30/2006	0	5	
RCRA	RCRA	144	INSIDE B-1 GROUND FLOOR PUMP-105 EAST WALL	ATA	1.000	05/30/2006	5	5	
RCRA	RCRA	145	INSIDE B-1 GROUND FLOOR PUMP-105 EAST WALL	ATA	1.000	05/30/2006	2	5	
RCRA	RCRA	146	INSIDE B-1 GROUND FLOOR PUMP-105 EAST WALL	VLV	1.500	05/30/2006	8	5	
RCRA	RCRA	150	INSIDE B-1 GROUND FLOOR PUMP-105 EAST WALL	ATA	1.500	05/30/2006	1	. 5	
RCRA	RCRA	151	ROOF LEVEL AT B-1 EAST WALL	ATA	2.000	05/30/2006	0	5	
RCRA	RCRA	154	B-6 NORTH-EAST WALL PUMP-610 ORGANIC	ATA	2.000	05/30/2006	0	6	

			Run ID 0506					Bkgrd
Area	Sub Area	Tag ID	Description	Туре	Size	Monitor Date	(ppm)	Read
RCRA	RCRA	157	B-6 NORTH EAST WALL PUMP-610 ORGANIC	ATA	2.000	05/30/2006	0	6
RCRA	RCRA	159	B-6 NORTH-EAST WALL PUMP-610 ORGANIC	VLV	1,000	05/30/2006	0	6
RCRA	RCRA	16	BST-10000-4 BULK WASTE STORAGE TRUCK LOAD LINE	ATA	1.000	05/30/2006	1	4
RCRA	RCRA	162	B-6 NORTH-EAST WALL PUMP-610 ORGANIC	ATA	2,000	05/30/2006	0	6
RCRA	RCRA	164	B-6 NORTH-EAST WALL PUMP-610 ORGANIC	ATA	2.000	05/30/2006	1	6
RCRA	RCRA	169	B-6 NORTH-EAST WALL PUMP-609 AQUEOUS	VLV	2.000	05/30/2006	0	6
RCRA	RCRA	17	BST-10000-4 BULK WASTE STORAGE TRUCK LOAD LINE	ATA	0.750	05/30/2006	1	4
RCRA	RCRA	173	B-6 NORTH-EAST WALL PUMP-609 AQUEOUS	AFA	2.000	05/30/2006	58	6
RCRA	RCRA	176	B-6 NORTH-EAST WALL PUMP-609 AQUEOUS	ATA	2,000	05/30/2006	2	6
RCRA	RCRA	186	B-6 NORTH-EAST WALL PUMP-609 AQUEOUS	ATA	2.000	05/30/2006	0	6
RCRA	RCRA	188	B-6 NORTH-EAST WALL PUMP-609 AQUEOUS	ATA	2,000	05/30/2006	1	1
RCRA	RCRA	189	B-6 NORTH-EAST WALL PUMP-609 AQUEOUS	ATA	2,000	05/30/2006	0	1
RCRA	RCRA	19	BST-10000-4 BULK WASTE STORAGE TRUCK LOAD LINE	ATA	3.000	05/30/2006	0	4
RCRA	RCRA	190	B-6 NORTH-EAST WALL PUMP-609 AQUEOUS	$\Lambda\Gamma\Lambda$	0.500	05/30/2006	6	1
RCRA	RCRA	192	B-6 NORTH EAST WALL PUMP-610 ORGANIC	ATA	1.000	05/30/2006	0	1
RCRA	RCRA	194	B-6 NORTH EAST WALL PUMP-610 ORGANIC	ATA	1.000	05/30/2006	0	1
RCRA	RCRA	197	B-6 NORTH EAST WALL PUMP-610 ORGANIC	ATA	1.000	05/30/2006	4	1
RCRA	RCRA	2	BST-10000-4 BULK WASTE STORAGE TANK	VLV	3.000	05/30/2006	31	4
RCRA	RCRA	201	B-6 NORTH EAST WALL PUMP-610 ORGANIC	ATA	1.500	05/30/2006	2	1
RCRA	RCRA	204	B-6 NORTH EAST WALL PUMP-610 ORGANIC	ATA	1.500	05/30/2006	4	1
RCRA	RCRA	206	B-6 NORTH EAST WALL PUMP-610 ORGANIC	VLV	1.000	05/30/2006	2	1
RCRA	RCRA	207	B-6 NORTH EAST WALL PUMP-610 ORGANIC	ATA	1.000	05/30/2006	0	1
RCRA	RCRA	21	BST-10000-4 BULK WASTE STORAGE TRUCK LOAD LINE	VLV	1.000	05/30/2006	1	4
RCRA	RCRA	213	B-6 NORTH EAST WALL PUMP-610 ORGANIC	VLV	2,000	05/30/2006	2	1
RCRA	RCRA	214	B-6 NORTH EAST WALL PUMP-610 ORGANIC	VLV	2.000	05/30/2006	2	1
RCRA	RCRA	216	B-6 NORTH EAST WALL PUMP-610 ORGANIC	VLV	1.500	05/30/2006	4	1
RCRA	RCRA	218	B-6 NORTH EAST WALL PUMP-610 ORGANIC	VLV	1.500	05/30/2006	1	1
RCRA	RCRA	22	BST-10000-4 BULK WASTE STORAGE TRUCK LOAD LINE	VLV	0.750	05/30/2006	0	4
RCRA	RCRA	220	B-6 NORTH EAST WALL PUMP-610 ORGANIC	VLV	1.500	05/30/2006	3	1

			Run ID 0506				Bkgrd
Area	Sub Area	Tag ID	Description	Type Size	Monitor Date	(ppm)	Read
RCRA	RCRA	222	B-6 NORTH EAST WALL PUMP-610 ORGANIC	VLV 1.50	0 05/30/2006	0	1
RCRA	RCRA	224	B-6 NORTH EAST WALL PUMP-610 ORGANIC	VLV 1.50	0 05/30/2006	9	1
RCRA	RCRA	225	B-6 NORTH EAST WALL PUMP-610 ORGANIC	VLV 1.50	0 05/30/2006	0	1
RCRA	RCRA	226	B-9 BACK DOOR	VLV 1.50	0 05/30/2006	2	5
RCRA	RCRA	227	B-9 BACK DOOR	VLV 1.50	0 05/30/2006	0	5
RCRA	RCRA	230	B-10 BY ELECTRIC ROOM	VLV 1.50	0 05/30/2006	5	5
RCRA	RCRA	234	B-10 BY ELECTRIC ROOM	VLV 1,50	0 05/30/2006	2	5
RCRA	RCRA	23679	B-14 3004	VLV 0.75	0 05/30/2006	2	7
RCRA	RCRA	23680	B-14 3004	VLV 1.00	0 05/30/2006	4	7
RCRA	RCRA	23681	B-14 3004	VLV 2.00	0 05/30/2006	0	7
RCRA	RCRA	23682	B-14 RG-3004	VLV 3.00	0 05/30/2006	0	7
RCRA	RCRA	237	B-10 BY ELECTRIC ROOM	VLV 1.50	0 05/30/2006	2	5
RCRA	RCRA	238	B-10 BY ELECTRIC ROOM	VLV 1.50	0 05/30/2006	0	5
RCRA	RCRA	239	B-10 BY ELECTRIC ROOM	VLV 1.50	0 05/30/2006	7	5
RCRA	RCRA	240	B-10 BY ELECTRIC ROOM	VLV 1.50	0 05/30/2006	0	5
RCRA	RCRA	242	B-10 BY ELECTRIC ROOM	VLV 1.50	0 05/30/2006	1	5
RCRA	RCRA	244	B-10 BY ELECTRIC ROOM	VLV 1.00	0 05/30/2006	8	5
RCRA	RCRA	245	B-10 BY ELECTRIC ROOM	VLV 1.00	0 05/30/2006	0	5
RCRA	RCRA	247	B-14 3004	VLV 1.00	05/30/2006	1	7
RCRA	RCRA	250	B-14 3004	VLV 1.00	0 05/30/2006	0	7
RCRA	RCRA	253	B-14 3004	VLV 2.00	05/30/2006	0	7
RCRA	RCRA	255	B-14 3004	VLV 1,50	05/30/2006	6	7
RCRA	RCRA	257	B-14 3004	VLV 0.75	0 05/30/2006	2	7
RCRA,	RCRA	262	B-14 RG-3004	VLV 0.75	0 05/30/2006	0	7
RCRA	RCRA	26369	B-6 NORTH-EAST WALL PUMP-610 ORGANIC	VLV 1.00	0 05/30/2006	2	1
RCRA	RCRA	26370	B-6 NORTH-EAST WALL PUMP-609 AQUEOUS	VLV 2.00	0 05/30/2006	0	1
RCRA	RCRA	26371	B-6 NORTH EAST WALL PUMP-610 ORGANIC	VLV 1.00	05/30/2006	6	1
RCRA	RCRA	26372	B-6 NORTH-EAST WALL PUMP-609 AQUEOUS	VLV 2.00	05/30/2006	3	1
RCRA	RCRA	26373	B-6 NORTH-EAST WALL PUMP-609 AQUEOUS	VLV 2.00	05/30/2006	1	1

			Run ID 0506					Bkgrd
Area	Sub Are	a Tag ID	Description	Туре	Size	Monitor Date	(ppm)	Read
RCRA	RCRA	26374	B-6 NORTH EAST WALL PUMP-610 ORGANIC	VLV	1.000	05/30/2006	0	1
RCRA	RCRA	26375	B-6 NORTH-EAST WALL PUMP-610 ORGANIC	VLV	2,000	05/30/2006	0	1
RCRA	RCRA	26376	B-6 NORTH EAST WALL PUMP-610 ORGANIC	VLV	1.500	05/30/2006	1	1
RCRA	RCRA	26377	B-6 NORTH EAST WALL PUMP-610 ORGANIC	VLV	1.000	05/30/2006	1	1
RCRA	RCRA	26378	B-6 NORTH-EAST WALL PUMP-609 AQUEOUS	VLV	0.500	05/30/2006	0	1
RCRA	RCRA	26383	B-14 B	VLV	2.000	05/30/2006	2	7
RCRA	RCRA	266	B-14 RG-3004	VLV	0.750	05/30/2006	0	7
RCRA	RCRA	269	B-14 RG-3004	ATA	3.000	05/30/2006	7	7
RCRA	RCRA	275	B-14 RG-3004 BY C-14	ArA	1,500	05/30/2006	0	7
RCRA	RCRA	277	B-14 B	ATA	2.000	05/30/2006	0	7
RCRA	RCRA	28	B-2 WEST-WALL 2ND FLOOR AT STAIRS	VLV	2.000	05/30/2006	4	4
RCRA	RCRA	280	B-3 TS-3002 PUMP	VLV	1.500	05/30/2006	1	5
RCRA	RCRA	282	B-3 TS-3002 PUMP	VLV	1,000	05/30/2006	0	5
RCRA	RCRA	284	B-3 TS-3002 PUMP	VLV	1.000	05/30/2006	10	5
RCRA	RCRA	288	B-3 TS-3002 PUMP	VLV	1.000	05/30/2006	0	5
RCRA	RCRA	289	B-3 TS-3002 PUMP	ATA	1,000	05/30/2006	6	5
RCRA	RCRA	290	B-3 TS-3002 PUMP	VLV	1,000	05/30/2006	0	5
RCRA	RCRA	294	B-3 TS-3002 PUMP	ATA	1.000	05/30/2006	1	5
RCRA	RCRA	297	B-3 TS-3002 PUMP	ATA	3.000	05/30/2006	0	5
RCRA	RCRA	32	B-2 WEST-WALL 2ND FLOOR AT STAIRS	ATA	2.000	05/30/2006	0	4
RCRA	RCRA	36	B-2 WEST-WALL 2ND FLOOR AT STAIRS	ATA	2.000	05/30/2006	0	4
RCRA	RCRA	4 4	B-2 WEST-WALL 2ND FLOOR AT STAIRS	VLV	2,000	05/30/2006	1	4
RCRA	RCRA	48	B-2 WEST-WALL 2ND FLOOR AT STAIRS	VLV	2.000	05/30/2006	5	4
RCRA	RCRA	52	B-2 WEST-WALL 2ND FLOOR AT STAIRS	ATA	2,000	05/30/2006	1	4
RCRA	RCRA	57	B-2 W-WALL 2ND FLOOR 2in LINE RUNNING DOWN	WALL VLV	2,000	05/30/2006	2	4
RCRA	RCRA	58	B-2 W-WALL 2ND FLOOR 2in LINE RUNNING DOWN	WALL VLV	1.000	05/30/2006	4	4
RCRA	RCRA	6	BST-10000-4 BULK WASTE STORAGE TANK	VLV	1.000	05/30/2006	1	4
RCRA	RCRA	60	B-2 W-WALL 2ND FLOOR 2in LINE RUNNING DOWN	WALL VLV	2.000	05/30/2006	. 2	4
RCRA	RCRA	63	TRUCK LOAD LINE FOR BST-8000-5-6	VLV	3.000	05/30/2006	1	4

Bkgrd

Area	Sub Area	Tag ID	Description	Type	Size	Monitor Date	(ppm)	Read
RCRA	RCRA	65	TRUCK LOAD LINE FOR BST-8000-5-6	ATA	1.000	05/30/2006	2	4
RCRA	RCRA	67	TRUCK LOAD LINE FOR BST-8000-1-2-3-9	VLV	3.000	05/30/2006	0	4
RCRA	RCRA	69	TRUCK LOAD LINE FOR BST-8000-1-2-3-9	$\Lambda \Gamma \Lambda$	1.000	05/30/2006	8	4
RCRA	RCRA	71	TRUCK LOAD LINE FOR BST-8000-4-8-7	VLV	3.000	05/30/2006	0	5
RCRA	RCRA	73	TRUCK LOAD LINE FOR BST-8000-4-8-7	ATA	1.000	05/30/2006	4	4
RCRA	RCRA	77	GROUND LEVEL AT BST-8000-9	$\Lambda\Gamma\Lambda$	1.000	05/30/2006	6	5
RCRA	RCRA	79	GROUND LEVEL AT BST-8000-6	$\Lambda\Gamma\Lambda$	2.000	05/30/2006	18	5
RCRA	RCRA	8	BST-10000-4 BULK WASTE STORAGE TANK	VLV	2,000	05/30/2006	0	4
RCRA	RCRA	84	GROUND LEVEL AT BST-8000-5	$\Lambda\Gamma\Lambda$	2.000	05/30/2006	5	4
RCRA	RCRA	86	GROUND LEVEL AT BST-8000-8	ATA	2.000	05/30/2006	0	4
RCRA	RCRA	90	GROUND LEVEL AT BST-8000-8	ATA	2.000	05/30/2006	0	4
RCRA	RCRA	92	GROUND LEVEL AT BST-8000-8	ATA	3,000	05/30/2006	0	4
RCRA	RCRA	95	GROUND LEVEL AT BST-8000-8	ATA	2.000	05/30/2006	1	4
RCRA	RCRA	97	GROUND LEVEL AT BST-8000-8	ATA	3.000	05/30/2006	1	4
RCRA	RCRA	99	GROUND LEVEL AT BST-8000-7	VLV	0.750	05/30/2006	6	4
RCRA	RCRA	26408	BLDG 1 TOTE TANK	ATA	1.000	05/30/2006	11	4
RCRA	RCRA	26409	BLDG 1 TOTE TANK	$\Delta\Gamma\Delta$	1.000	05/30/2006	. 3	5
RCRA	RCRA	26410	BLDG 2 TOTE TANK	ATA	1.000	05/30/2006	6	4
RCRA	RCRA	26411	BLDG 2 TOTE TANK	ATA	1.000	05/30/2006	0	4
RCRA	RCRA	26412	WASTE SHED #3 TOTE TANK	VLV	1,000	05/30/2006	0	1
RCRA	RCRA	26413	WASTE SHED #3 TOTE TANK	ATA	1,000	05/30/2006	5	1
RCRA	RCRA	26414	BLDG 14 TOTE TANK	$\Lambda\Gamma\Lambda$	1.000	05/30/2006	0	7
RCRA	RCRA	26415	BLDG 14 TOTE TANK	VLV	1.000	05/30/2006	. 9	7
RCRA	RCRA	26416	BLDG 14 TOTE TANK	VLV	1.000	05/30/2006	2	7
RCRA	RCRA	26417	BLDG 9 TOTE TANK	VLV	1,000	05/30/2006	1	5
RCRA	RCRA	26418	BLDG 9 TOTE TANK	VLV	1,000	05/30/2006	2	5
RCRA	RCRA	26419	BLDG 9 TOTE TANK	VLV	1,000	05/30/2006	0	5
RCRA	RCRA	26420	BLDG 9 TOTE TANK	VLV	1,000	05/30/2006	2	5
RCRA	RCRA	26421	BLDG 9 TOTE TANK	ATA	1.000	05/30/2006	5	5

			Kun 10 0506					Bkgrd
Area	Sub Area	Tag ID	Description	Туре	Size	Monitor Date	(ppm)	Read
RCRA	RCRA	26422	BLDG 9 TOTE TANK	VLV	1.000	05/30/2006	0	5
RCRA	RCRA	26423	BLDG 9 TOTE TANK	VLV	1.000	05/30/2006	2	5
RCRA	RCRA	26424	BLDG 6 TOTE TANK	VTA	1.000	05/30/2006	0	1
RCRA	RCRA	26425	BLDG 6 TOTE TANK	VLV	1.000	05/30/2006	23	1
RCR <b>A</b>	RCRA	26426	BLDG 6 TOTE TANK	VTA	1.000	05/30/2006	6	1
RCRA	RCRA	26427	BLDG 6 TOTE TANK	VLV	1.000	05/30/2006	0	ĺ
RCRA	RCRA	26428	BLDG 6 TOTE TANK	VLV	1.000	05/30/2006	7	1
RCRA	RCRA	26429	BDLG 6 TOTE TANK	VLV	1.000	05/30/2006	0	1

# ATTACHMENT 16

FURMANITE	Process Research & Unit Docu	Process Research & Unit Documentation	
SOP#	Last approved by: Effective (last revised) Date:		

### Approval, Release, and Revision Dates

Name(s)	Title(s)	Signed	Date(s)
Writter			
Approved			
Revised			
Approved			

### Description

This procedure specifies how to properly document a unit, including

**Process Diagram** 

Major Steps (overview)

**Quality Control Standard** 

Technician Responsibilities

Preparation

Flagging and Tagging Supplies and Equipment

Flagging Procedure

Tagging Procedure

Completing the General Monitoring Route Form

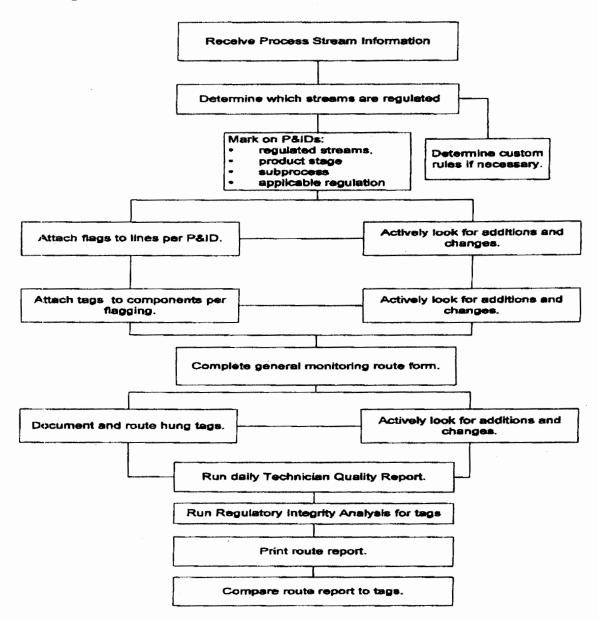
**Summary** 

P&ID Sign-Out Sheet

General Monitoring Route Form

FURMANITE	Process Research & Unit Documentation			
SOP #	Last approved by:	Effective (last revised) Date:		

### **Process Diagram**



FURMANITE	Process Research & Unit Docu	Process Research & Unit Documentation Pag		
SOF #	Last approved by:	Effective (last revised) Date:		

### **Major Steps**

	Benchmark
1	Furmanite receives process stream information from the Client.
2	Furmanite works with the Client to decide which process streams are regulated by the applicable regulation.
3	Client provides P&ID, and Furmanite personnel mark the regulated streams on the drawing, with the Client providing any additional information needed.
4	Client specifies monitoring and reporting criteria.
5	Furmanite makes changes to the unit setup if any are needed.
6	Furmanite uses Client-provided information to mark the product stage, sub- process and applicable regulations for the process streams on the P&ID.
7	Furmanite marks the P&ID to reflect actual equipment in the plant and attaches flags to the lines carrying regulated streams shown on the P&ID
8	Furmanite personnel tag the components of the flagged lines.
9	Furmanite personnel fill out the general monitoring route form.
10	Furmanite documents and routes the tagged components and identifies additions and changes to the tagged components.
11	Furmanite management reviews a master detail report for each technician's work daily.
12	Furmanite corrects any errors found by daily quality assurance audits.
13	Furmanite prints the route report.
14	Furmanite does a field quality assurance audit by checking the route report against the documented tags in the field.

FURMANITE'	Process Research & Unit Docu	mentation	Page 4 of 11
SOP#	Last approved by:	Effective (last revised) Date:	

### **Quality Control Standard**

You must complete each step of these procedures for each unit to assure that the documentation of the unit meets Furmanite quality standards.

- 1. Client provides process stream information. Furnanite examines the information with Client (or whomever the Client designates) to decide which regulations apply.
- 2. Furmanite marks P&ID to identify regulated streams, product stage of stream, subprocess and/or applicable regulation.
- 3. Furmanite labels the process streams from beginning to end. Where a regulated line intersects a nonregulated line, at the last valves back from the regulated stream, Furmanite labels the nonregulated line as NA (not applicable) or NM (not monitored). Lines containing air (Air), steam (Stm), and water (H2O) are labeled accordingly on the P&ID so they won't be tagged.
- 4. Client contributes to and/or reviews the labeling.
- Regulated streams on the P&ID are highlighted according to the following color code:

Stream	Color	Label
Heavy liquid	Blue	HL
Light liquid	Orange	LL
Vapor (if labeled differently from gas)	Yellow (same color as gas)	V or Vap
Gas/Vapor (if not labeled separately)	Yellow	G
Vacuum Service	Purple	VS
Closed Vent System	Pink	CVS
Benzene	Green	BZ

- 6. The technician doing the flagging follows each marked line on the P&ID from beginning to end, marking the regulated line with stream, product stage and subprocess information. The flagging technician questions any P&ID markups that appear to be in error. The client contact, unit operator and Furmanite supervisor check the work.
- 7. The technician doing the tagging attaches a numbered tag to each component according to the applicable regulation. The tagging technician checks for lines that seem to have been missed by the flagging technician or flagged incorrectly. The unit operator, client contact and the Furmanite supervisor check that work.
- 8. Furmanite fills out a general monitoring route form to give the documenting technician the most efficient predetermined path to follow so that no regulated components or process areas are overlooked.
- The technician who documents the tags uses the general monitoring route form, marking each tag as it is entered into the hand held computer. The Furmanite supervisor checks the work, identifying and investigating any tag that is left unmarked.
- 10. Furmanite prints a master report for each technician at the end of the day and checks it for errors.
- 11. After completing the documentation and quality assurance audits, Furmanite prints a unit route report. Furmanite compares each component on the route report to the actual tag in the field and checks the accuracy of the information.
- 12. To make sure all newly added components are entered into the database, Furmanite technicians investigate components requires monitoring but are not in the monitoring route or not tagged.

FURMANITE	Process Research & Unit Docu	mentation	Page 5 of 11
SOP#	Last approved by:	Effective (last revised) Date:	

### **Technician Responsibilities**

- 1. Meet with Client and set up the plant, using the job set-up sheet.
- 2. Define units
  - 2.1. Identify applicable regulations for each unit
  - 2.2. Establish monitoring order (schedule) for each unit
  - 2.3. Define product codes
- 3. Meet with the unit supervisor and/or engineer for the first unit in the monitoring order. Fill out the job set-up sheet with the following information:
  - 3.1. Subprocesses comprising the unit, grouped by applicable regulation.
  - 3.2. Pump configurations in the unit (adding the configuration code by the pump on the P&ID).
  - 3.3. Compressor configurations in the unit (adding the configuration code by the compressor on the P&ID)
  - 3.4. Product location on the exchangers in the unit (in the tube, in the shell, or in both?)
- 4. After completing the job set-up sheet,
  - 4.1. Color-code the lines in VOC/VHAP service (gas, liquid, vapor, heavy, or vacuum service) and mark the P&ID with the appropriate product code and subprocess code next to each line.
  - 4.2. In the actual unit, choose a piece of equipment to be the start of the monitoring route. Find that piece of equipment on the P&ID, then flag the equipment and trace and flag the lines.
  - 4.3. Write the product code, product stage, and subprocess code for the line on each flag. If the Client requests it, write the P&ID number and/or line number on each flag.
- 5. While tagging and documenting the unit,
  - 5.1. Supervise the recording and tagging to make sure they are done properly.
  - 5.2. Check for regulated lines that were not on the P&ID and need to be documented.
  - 5.3. Check that the flags are removed from lines that have been documented.
  - 5.4. Make sure flags are added to lines that were previously documented.
- 6. After you finish tagging and documenting one unit, .repeat steps 2-4 for the next unit in the monitoring order.

FURMANITE	Process Research & Unit Docu	mentation	Page 6 of 11
SOP #	Last approved by:	Effective (last revised) Date:	

### Preparing to Map the Monitoring Route

Experienced technicians must map out an efficient monitoring route through the unit, making sure that all components that need to be monitored are

Accurately identified

Properly tagged

**Documented** 

And that the route

Saves unnecessary steps

Minimizes climbing

Flows logically so that no tags are missed

Following this procedure assures that the new monitoring route will meet Furmanite, Client, and regulatory requirements for fugitive emissions monitoring.

- 1. When using plot plans or P&IDs to identify equipment, check the accuracy of the equipment names with the Unit Operator so you can be sure to identify all equipment correctly.
- 2. Ask the Unit Operator if you are allowed to write on equipment with paint pens.
- 3. Identify PLANT North, South, East and West for the Unit.
- 4. Walk the Unit.
- 5. Identify lines that are tagged.
- 6. Break up the unit into identifiable blocks or segments, such as pump bay, compressor building, or tank farm.
- 7. Within each block identify the equipment layout, E to W, N to S.
- 8. Identify equipment rows (such as pumps, vessels, and towers) and follow the rows when you can.
- After identifying the blocks within the unit, figure out the most logical path from one to another, keeping in mind the starting and ending points. The ending point for one block should lead logically to the starting point for the next block.
- 10. Identify building structures with multiple floors. Try to complete each structure before moving to the next block (except when the upper levels of structures or towers are connected by walkways). Limit the number of times that technicians have to climb ladders as much as you reasonably can (for example, when the upper levels of towers are linked by walkways).
- 11. Identify the starting point for monitoring the unit.
- 12. Don't start a route in the middle of a unit; start at a corner, if possible, start on the side nearest a road. Identify the starting point clearly (so a new technician could easily recognize it).
- 13. Walk the route several times before making the route map final.
- 14. If possible, identify lines that should not have been tagged (i.e. steam and utility) and remove the tags.

FURMANITE	Process Research & Unit Docu	mentation	Page 7 of 11
SOP#	Last approved by:	Effective (last revised) Date:	

### Flagging and Tagging Supplies and Equipment

For flagging and tagging, you will need these supplies and equipment:

P & ID

General Monitoring Route Form

Paper Flags

**Ties** 

Tags

Lead heads

Black Sharpie pen

Paint pens (to mark pipes for tagging and to identify any control valves or vessels that are not clearly marked)

Hand-held computer

### Field-Flaging Procedure

- 1. Find the line or vessel in the field.
- 2. Identify the regulation, product stage, and closed vent status from the P&ID. If requested or applicable, include the P&ID number, line number and/or sub-process, and product code.
- Write on paper flag with a Sharple or line with a paint pen:
  - 3.1. Regulation (NSPS, HON, Reg V, NESHAP, etc.)
  - 3.2. Product Code
  - 3.3. Product Stage
- 4. Gas/Vapor GV
  - 4.1. Light Liquid L
  - 4.2. Heavy Liquid H
- 5. Closed Vent Status If the line is in the Closed Vent, write CVS, otherwise leave blank.
- 6. Example: HON, Vapor, IN Closed Vent System = HON, Product Code, GV, CVS
  - 6.1. Example: NSPS, Light Liquid NOT in Closed Vent System = NSPS, Product Code, L
  - 6.2. Hang flag.
- 7. Follow the line to the end of the P&ID.
- 8. Hang flags at intervals that will allow a person documenting to readily identify the line. Do not over-flag the line. That just wastes time.
  - 8.1. Tie one flag on the switch of each pump.
  - 8.2. Tie a flag at the point where the product or regulation changes.
  - 8.3. Example: Closed vent on a seal pot, or an NSPS line tying into a HON line, Closed vent after a PRV, etc.
- 9. After the flagger has finished with a line, lightly\* crosshatch the line or vessel to show that you are finished. Do the crosshatching neatly and lightly, because the P&ID will be kept.
- 10. Check in all P&IDs at the end of each day.

FURMANITE	Process Research & Unit Docu	mentation	Page 8 of 11
SOP#	Last approved by:	Effective (last revised) Date:	

### Field Tagging Procedure

- 1. Identify the lines Furmanite has flagged.
- 2. Tag all applicable components on the line or vessel.

HON components include flanges, tees, ells, screwed connectors, check valves, instrument valves, control valves, valves, unions, etc.

If the client requests, NSPS, NESHAP, & RCRA lines may include tagging flanges, tees ells, connectors and crosses in addition to the NEA valves, instrument valves, control valves, and valves.

- The site supervisor is responsible for confirming the client directives on tagging not required by the applicable regulation.
- 4. Do not tag valve-end flanges.
- 5. Notify the flagger when you finish a line or vessel.

### Completing the General Monitoring Form

- Record the equipment number on the routing form by vessel, tank, or pump number plus monitoring direction (N, S, E, W, NW, SE etc.). This will allow the people who are documenting or monitoring behind you to follow your thinking.
- 2. Routing vessels, exchangers, towers and tanks.
  - 2.1. When routing exchangers or tanks, start at one end.
  - 2.2. Start on the bottom of the Vessel or Tower, not the middle. You can miss components if you start in the middle. If there is a platform or multiple levels on a vessel or tower, it is not necessary to route each platform unless there are special considerations. The designation "Up Ladder" should be enough to tell the technician or documenting technician to climb and examine each level or platform for tagged components.

Example: TK 5426 - S, E, W, Up Ladder, N Example: TWR C6 - S, E, Up Ladder, W, N

- 3. Routing Pumps:
  - 3.1. Treat the pump just like you would a vessel. Routing the components on a N, S, E, W basis. While planning route, determine which suits your route by either starting on the pump seal or ending on the pump seal. As you route up and down a line, be very systematic, and clean out all components on the side you are routing. Start at the top component on a line. Always identify when you want the Tech to monitor the pump seal.

Example Starting on Pump Seal: Pump P205 - PmpS, E, S, W

Example Ending on Pump Seal: Pump P205 - E, S, W, PmpS

Example Pump Seal in Middle: Pump P205 - SE, SW, PmpS, NW, SW

3.2. Include instrument valves or control loops with a pump or vessel when they are attached or should be logically included with a row of pumps.

Example: Pump P205 - CNLP 4 FT SE, SE, SW, PmpS, NW, SW

Example: Ex 4502 - BTM W, SW, NW, CNLP 6 FT N, NE, SE, INST VLV 4 FT S

4. When moving to the next piece of equipment in the route, note overhead and isolated valves and control loops that must be included in the route. Constantly look up and under equipment; valves can be hidden anywhere! Include these in the GMR.

Example: OHD Vivs 6 FT from TK 425 Example: CNLP 15 FT SW of Pmp P235

5. Work your way through the unit filling out the General Monitoring Route Form. When you're finished, the documenting technician or route-monitoring crew can fill in the specific tags in the route, following specific

FURMANITE	Process Research & Unit Docu	mentation	Page 9 of 11
SOP #	Last approved by:	Effective (last revised) Date:	

procedures for monitoring components. New technicians can figure out the route for the unit, using the completed General Monitoring Route.

6. As you fill out the General Monitoring Route, write identification numbers on vessels, towers, and pumps with a paint stick if the equipment number is not visible or is hard to read. Write the number in a place that is easily visible as the technician moves from the last piece of equipment routed.

Important: Some Units will not let you write on their equipment. Ask the Unit Operator before you write on anything. Do not write on Control Valves. Because they control processes, making an error in writing the valve number could cause an accident.)

### Summary

When routing, think ahead. For example, where do you want to start, and where do you want to end?

A good route flows naturally from one tag to the next. It should never double back on itself. Plan carefully to save steps (and time) and to prevent mistakes such as overlooking tags. Take time to plan the best route. It is well worth the effort.

Whenever possible, follow rows of equipment. Check flare lines. It is usually better to follow a row of pumps or to finish a vessel or tank completely before going on to a nearby set of tags on another piece of equipment, but use common sense. Make sure that a monitoring technician who has never seen this plant before could easily follow your route.

Keep your eyes open and pay attention. Look above, behind, and under lines and vessels for components that should be added to the monitoring route. Sometimes they are hidden.

After routing an area, walk the route again with a critical eye. Always double-check carefully to make sure you didn't miss anything.

FURMANITE	Process Research & Unit Docu	mentation	Page 10 of 11
SOP #	Last approved by:	Effective (last revised) Date:	

**P&ID Signout Sheet** 

Sign-Out Date	P&ID Number	Technician Code	Date P&ID Was Returned	Flagging Completed? Y/N

FURMANITE	Process Research & Unit Docu	mentation	Page 11 of 11
SOP#	Last approved by:	Effective (last revised) Date:	

### **General Monitoring Route Form**

PLANT	UNIT
ROUTING TECHNICIAN	
EQUIPMENT NUMBER	DIRECTIONS/AREA DESCRIPTION
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

# ATTACHMENT 17

Aug 17 06 02:19p FEIP\_BJones 502-569-2670 p.1

### FURMANITE

omnliance

July 31, 2006

Mr. Jim Burkey Albemarle Corporation 2 Adams Avenue Tyrone Industrial Park Tyrone, PA 16686

Re:

Monitoring with missing tags

Dear Mr. Burkey:

It is my understanding that you had an EPA inspection recently. During this inspection, the EPA inspectors noted that the facility is missing tags on several components and wondered how monitoring is being performed on these components. One important factor to note is that the regulations specifically state that physical tags are not required to be hung on the components but the components must be "readily identifiable". The regulations identify several possibilities as ways of identifying applicable components - databases, P&lds, etc.

Furmanite's procedure for documenting and tagging a project is to follow a systemic approach so that if the regular technician can not monitor for a particular period another technician will be able to monitor without any problems. The first step is to review the process and the P&ld's with the plant's staff. Next, the technician will go to the unit and walk the process lines and mark the P&Id's with any additional items that are not on the diagram. At this time, the technician will begin to tag the components and begin the documentation of the unit into the database. The database will contain a description of the component as well as the size and location. These descriptors help the technician further identify the component. The technician will begin to tag a component at a logical point of the process and follow in numerical order following the piping.

At Albernarie, the only process lines monitored by Furmanite's technicians are hazardous waste lines subject RCRA BB. The process units which need to be monitored are marked "waste line A", "waste line B" and the tank farm is also marked as "Hazardous Waste". In conjunction with the database and theses additional identifiers, it is very easy for a technician to identify a component that needs to be

If you need additional information, please do not hesitate to contact me.

Sincerely,

Angela J. Tucker-Peeler LDAR/eCompliance Service Line Manager

> LDAR Division 101 Old Underwood Road La Porte, TX 77571 Ph: 281-842-5100

# ATTACHMENT 18

## Albemarle Corporation Non-Exempt Position Description

Job Title:	Operator
Department:	Production
Supervisor's Title:	Shift Supervisor
Analyst:	Getz
Date:	June 2004
Approvals:	
Incumbent: Supervisor:	· · · · · · · · · · · · · · · · · · ·

### I. Overview of Functions (summary of duties and responsibilities of job)

This position performs various operations necessary for the production of chemicals, adhering to all applicable Albemarle rules and regulations, maintaining a safe work environment, and adhering to production schedules. The various duties include; loading raw materials, managing and transferring hazardous waste generated in appropriate areas, operating various types of process equipment, transferring chemicals from one area to another, monitoring the equipment and processes, documenting the reading, and packaging the finished product. Duties also include assisting with equipment setup and changeover including basic pipefitting, running hoses, etc.

### II. Education, Skill and Experience Requirements

#### A. Formal education required:

High school diploma or GED

### B. Specific courses, training, and job-related experience required:

The incumbent must be versatile, flexible and able to react quickly and effectively to potential problems and take the appropriate action to correct or notify the proper person. The incumbent must have the ability to handle multiple tasks and be able to set priorities with minimum supervision. A good working knowledge of the chemical manufacturing process is necessary.

C.	Licenses	and	certificates	required:	None
----	----------	-----	--------------	-----------	------

D. Job-related experience required (amount and type): 6 months or less

E. Estimated transition time for new employee to this position: 1 year

F. Number of individuals in the same job classification: Varies

### III. Physical Requirements

A. Length of average work week: 42 hours

### B. Machines, tools, equipment, electronic devices, and software required:

Equipment	Frequency
Various types of chemical production	Continuously
equipment including: vacuum pumps,	•
regulators, boilers, chemicals reactor, kettles	
and scrubbers, and centrifuges	
Lifting devices including air hoists	Frequently
Fork Truck	Occasionally
Small tools ·	Occasionally

### C. Physical Requirements Classification for this Position:

**Medium Work:** 

Exerting up 50 pounds of force occasionally; exerting up to

20 pounds of force frequently; exerting up to 10 pounds of

force constantly to move objects.

### D. Specific Physical Activities Required and Frequency of Activity:

Activity	Frequency	Activity	Frequency
Climbing	Continuously	Lifting 5-15 lbs.	Frequently
Balancing	Seldom	6-30 lbs	Frequently
Stooping	Frequently	31-50 lbs.	Frequently
Kneeling	Occasionally	51-75 lbs.	Never
Crouching	Seldom	>75 lbs	Never
Crawling	Never	Fingering	Seldom
Reaching	Frequently	Grasping	Occasionally
Standing	Frequently	Feeling	Seldom
Walking	Continuously	Talking	Continuously
Pushing	Frequently	Hearing	Frequently
Pulling	Frequently	Repetitive Motion	Occasionally

### E. Visual Requirements for this Position:

Far Vision:

Clarity of vision at 20 feet or more.

Near Vision:

Clarity of vision at 20 inches or less.

Mid-Range Vision:

Clarity of vision at distances of more than 20 inches and less

than 20 feet.

**Depth Perception:** 

The ability to judge distance and space relationships, so as to

see objects where as they actually are.

Color Vision:

Ability to identify and distinguish colors.

Field of Vision:

Ability to observe an area up or down or to the right or left

while eyes are fixed on a given point.

### IV. Work Environment

#### A. Position accesses work area via:

Stairs to all floors

### B. Type of surface on which the major activities of the job are carried out:

Level surface Slippery surface at times

### C. Environmental factors position is required to work within:

Environmental Factor	Nature/Reason for Exposure	Frequency
Fumes, odors, mists, gases	Chemical production process	Frequently
Dirt, Dusts	Chemical production process	Occasionally
Limited or poor ventilation	Working in confined areas	Frequently
Noise	Chemical process equipment	Frequently
Vibration	Chemical process equipment	Occasionally
Dampness	Moving between buildings	Occasionally
Temperature extremes	Chemical process equipment	Frequently
Significant work/pressure	Production schedules/knowledge of chemical process and potential	Continuously
	problems that can occur with errors	

### D. Hazardous conditions position is required to work under:

Hazardous Condition	Nature/Reason for Exposure	Frequency
Proximity to mechanical moving parts	Chemical production equipment	Frequently
Proximity to electrical current	Never	
Proximity to steam	Chemical production equipment	Frequently
Proximity to construction or mining equipment	Open gauges	Occasionally
Working on scaffolding and/or high place		Occassionally
Exposure to chemicals	Chemical production process	Continuously
Exposure to explosive materials	Never	
Exposure to radiation	Never	

### E. Protective clothing required:

Uniform, steel toe boots, safety glasses, and a hard hat are required. Maybe required to wear a respirator, rubber gloves, chemical suit, air hood or hearing protection while performing certain duties.

### V. Other Job Characteristics

### A. Business contacts required during typical workday:

Contact	Purpose of Contact	Frequency
Customers	When starting new projects	Occasionally
Suppliers/Vendors	Never	
General Public	Never	
Community/trade/pro. Org.	Never	
Fed/state govt/reg. Agency	Never	

#### B. Confidential Information/Processes/Data:

The incumbent is aware of confidential chemical process information.

### C. Supervision Received:

Moderate (access to supervisor and/or lead co-workers, when needed).

### D. Supervisory Responsibility

May assist with instructing new operators.

### VI. Decision Making Authority

None

### VII. Accountability and Responsibility

Operate various types of chemical production equipment including: reactors, pumps, centrifuge, flaker, boilers, and dryers according to the batch records and other applicable documentation or instructions.

Load raw materials into the processing equipment, unload the finished product and transport the product to the appropriate location using various types of equipment and procedures applicable to the chemical being processed. May load/unload drums and weigh them before transporting.

Monitor the equipment being used in the production process, checking temperature, pressure volume. Ph levels etc. by reading and interpreting various types of gauges and documenting the information at regular intervals.

Periodically check equipment readings in the control room, interpret and document. Assist with equipment setup and changeover including basic pipefitting, running hoses, etc.

Adhere to all plant policies on rules and safety, fire protection, good housekeeping, operating practices and personal conduct. Ensure that all equipment is operated safety and that work areas and equipment are kept clean and orderly.

### Marginal Job Functions (not fundamental to the job)

Pull samples during the production process in order to test/monitor the chemicals. Clean equipment at scheduled intervals using a variety of techniques and procedures applicable to the type of equipment. May involve entering parts of the equipment.

### Notes:

Responsibilities are representative of minimum levels of knowledge, skills and/or abilities. To perform this job successfully, the incumbent will possess the abilities or aptitudes to perform each job proficiently.

All responsibilities are subject to possible modification to reasonably accommodate individuals with disabilities.

Some responsibilities may exclude individuals who pose a direct threat or significant risk to the health and safety of themselves or other employees.

This description in no way states or implies that these are the only duties to be performed by the employee occupying this position. Employees will be required to follow any other job-related duties requested by the supervisor.

This document does not create an employment contract, implied or otherwise, other than an "at-will" employment relationship.